First Aid Mangement of Epilepsy in School Settings

(A Training Manual for Teachers & Students)

Dedicated to the golden jubilee celebrations of P.G.I.M.E.R. Chandigarh



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PREFACE

The word 'first aid' itself describes its meaning. It hands down the first action of behavior to the sufferer before one could get medical care from a doctor. First aid applies to a broad range of medical situations. It consists both of specific knowledge and skills (for example, what to do medical situations. It consists both of specific knowledge and skills (for example, what to do for each type of injury or illness) and the ability to assess a situation and make appropriate decisions (such as when to call for emergency medical assistance). The same applies for the epilepsy too. Epilepsy is one such ailment in which patients get immensely benefitted by immediate first aid attention.

In India, community and general public is lagging far behind from the concept of appropriate first aid action to be taken for injuries and common illnesses. The concept of self-care among the community and the students is usually missing. Epilepsy affects 60 million people worldwide. For many people with epilepsy, the continuing social reality of their life is to bear its stigma. While there have been documented improvements in public attitudes towards epilepsy, the remnants of "old" ideas about epilepsy continue to inform popular concepts resulting in a difficult social environment for those affected.

resulting in a unificult social stress of the wrong practices and myths associated with This booklet is very handy guide to clarify the wrong practices and myths associated with epilepsy. It briefly explains the disease, its manifestations, its spread and its causes. Even, the factors which trigger these fits are pointed out and some other factors related to fits. The roles of school teachers in managing epileptic children with 'do's and don'ts' of management are also highlighted.

It is essential that children with epilepsy are not labeled as "mad" or "insane". Some people might panic when they see a person having an epileptic fit. Often, they indulge in practices which should not be resorted to when a person is experiencing a fit, e.g., holding his arms and legs, etc. Such kind of action might do more harm than good to the person having the fits.

Students have a potential for changing the health scenario of the society, if properly groomed and educated for healthful living. This booklet will be used for their training in first aid management of epilepsy. Such training if given at young age will be a good investment in itself.

We have also been involved in training of schools students in UT Chandigarh under another earlier project undertaken in 2011. The response was quite encouraging. This has stimulated us further to expand the same methodology to include students and teachers from more schools of Chandigarh.

We have added more material as well as findings from our earlier project in this book.

However, this book is neither intended nor recommended as a substitute for medical advice, diagnosis, or treatment. Always seek advice of your own physician or other qualified healthcare professional regarding any questions or doubts you have after reading the book. We welcome any further suggestions or comments for improvement in the manual so that it can be made more useful for the students and teachers.

Dr Sonu Goel Dr Amarjeet Singh Dr Vivek Lal

Foreward

These days, there is a lot of talk about empowerment of general public, especially young generation of our society. Children learn a lot in schools besides academic things related to their syllabus. Since they spend 6-8 hours daily in schools, school teachers have a pivotal role in dissemination of knowledge and development of positive attitude towards any disease among school children. In chronic diseases like epilepsy also, there is a lot that can be taught to students.

In epilepsy, called by layman as fits, there is a grave social stigma attached to it. Treatment of epilepsy is quite long. It involves many consultations, and follow up visits. However, it's not necessary to pay visits to doctor for consultation every time when a patient has fits again and again. Such cases can be handled at home. For that, there is a great need to empower family members and community to take care of epileptic patient.

A variety of wrong and harmful practices are adopted during management of epilepsy. Thus, teachers and students need an intensive health education on various aspects of epilepsy to tackle the myths and misconception associated with it. In addition to it, there is a need to sensitize them with appropriate first aid action to be taken in epilepsy. They need to be made aware of the management regime for epilepsy.

PGIMER Chandigarh is a premier medical institute of Northern India. It provides a high quality health care to people. The institute's Neurology Department manages many serious and borderline epileptic patients, many of whom are children. The institute has taken upon itself to educate school teachers and students on epilepsy. School of Public Health at P.G.I.M.E.R. has published a book on First Aid Management of Epilepsy in School settings. Writing this type of book, researching, compiling the facts and publishing is a very tedious task. I hereby congratulate Dr. Sonu Goel, Dr. Vivek Lal, Dr. Amarjeet Singh and the other contributors for accomplishing this demanding job of writing another book on epilepsy care.

I sincerely hope that this book will help in enlightening the students and teachers about the basic facts of epilepsy and also help them to realize the need of the hour.

Dr. Anil Kumar Gupta Medical Superintendent PGIMER, Chandigarh



INDEX

Sr.	Subject	Page No.
Α.	INTRODUCTION	1
В.	GENERAL FACTS ABOUT EPILEPSY	1
C.	SOME COMMON CAUSES OF EPILEPSY	3
D.	TRIGGERS OF EPILEPSY	5
E.	TYPES OF EPILEPTIC FITS AND THEIR SINGS & SYMPTOMS	6
F.	EPILEPSY AND CHILDREN	9
G.	THE ROLE OF A SCHOOL TEACHER REGARDING A CHILD WITH EPILEPTIC	9
H.	FIRST AID MANAGEMENT DURING EPILEPTIC FITS	11
1.	THINGS NOT TO BE DONE DURING AN EPILEPTIC FIT	12
J.	WHAT LIFESTYLE CAN AN EPILEPTIC PATIENT ADOPT ?	13
K.	HOW TO CONTROL AN EPILEPTIC FIT ?	13
L.	WHEN SHOULD YOU SEND THE CHILD HOME?	14
M.	WHEN SHOULD YOU CALL MEDICAL HELP?	14
N.	CONCLUSION	14
Ο.	REFERENCES	15

A. INTRODUCTION

- In India the estimated number of people living with epilepsy is over 55 Lakh.
- Studies from different parts of India reveal that the problem varies from 9/1000 in Bangalore, 5/1000 in Mumbai, 3/1000 in Calcutta to 4/1000 in New Delhi.
- Our first reaction when we see person having fits is 'panic' as we do not know "what to do" or "how to do". This is because our knowledge of fits comprises of hearsay and various myths. This forces us to fear the disease.
- Epilepsy is a chronic neurological disorder characterized by a tendency to have recurrent seizures. Epilepsy is also known as a "seizure disorder"
- Seizure is a brief, excessive discharge of electrical activity in the brain that alters one or more of the following:
 Movement
 Sensation
 Behavior
 Awareness

B. GENERAL FACTS ABOUT EPILEPSY

Quite often, we hear about people having "fits" or "seizures" ("mirgi").

This is epilepsy.

1) Epilepsy manifests as recurrent sudden attacks of fits. The patient may or may not loose consciousness (fig 1)
(But it should be remembered, that in children, quite often, high fever may cause fits. Below the age of 6 years, 3-4 children out of 100 have seizures associated with fever. These are called 'febrile seizures'. This is not epilepsy.)



Fig 1: Epileptic patient

2) Epilepsy is a manifestation of some lesion/defect in brain of the patient (fig.2). It is not a fatal disease. It is a disease of the nervous system. But people with the disease should not be termed as mad/insane.

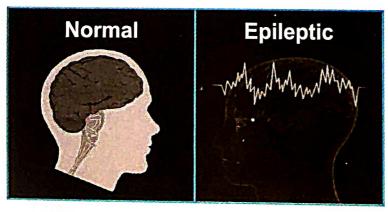


Fig 2:

- a) Scan of brain in a normal person
- b) Scan of brain in an epileptic patient.

(Excessive electrical discharge)

3) Epilepsy is one of the common childhood diseases. 1-2 out of 200 children have epilepsy. As such, in a school with 1000 students, around 5-10 may have epilepsy. In a school, epileptic children look like normal children only. (Fig 3)



Fig 3: Epileptic children look like normal children

4) Epilepsy does not spread from person to person. Contact with an epileptic person does not lead to its spread. (fig 4)



Fig 4: Epilepsy does not spread from personal contact

5) Epilepsy is not caused by evil spirits, black magic or ill fate. It is not result of a past sin. Hence, things like exorcism, 'mantras', magic etc. are not helpful in treating it. (fig 5)



Fig 5: Epilepsy is not caused by demons

- C. SOME COMMON CAUSES OF EPILEPSY
 - In most 70% of the cases, the cause of epilepsy cannot be identified. Following are the common causes of epilepsy:-
- 1. Heredity: Epileptic parents can transmit this disease from one generation to other (fig 6)

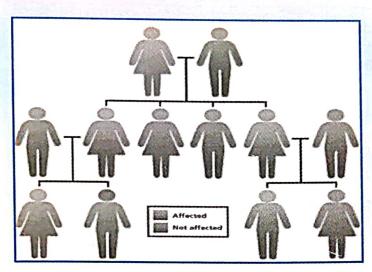


Fig 6: Epilepsy may be hereditary

2. Brain infections: Some diseases like TB, viral encephalitis etc may cause brain infections, which may lead to epileptic fits (fig7)

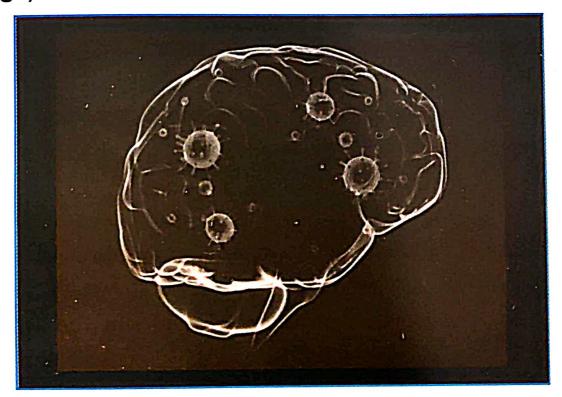


Fig 7: Epilepsy may be due to brain infections

2. Head injuries caused due to road side accidents, falls, or assault may lead to epilepsy (even if one had head injury many months back, fits may occur) later in life difficult delivery of the child may cause epilepsy (fig 8)

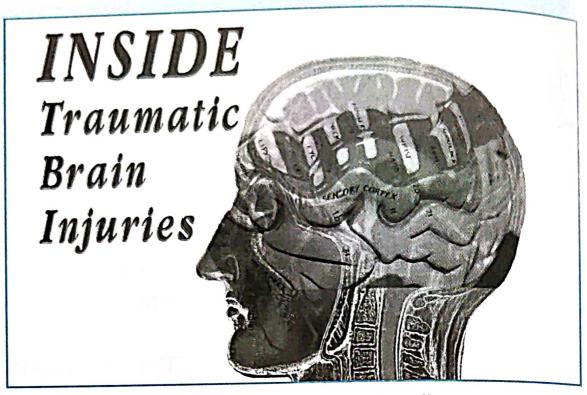


Fig 8: Head injury can lead to epilepsy

2. Brain tumors can also cause epilepsy. (fig 9)

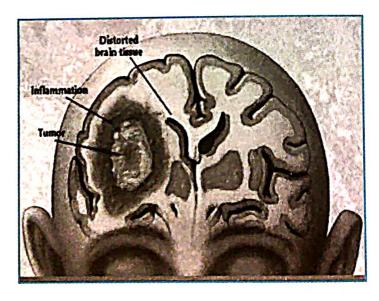


Fig 9: Brain tumor also cause fits in epilepsy

D. TRIGGERS OF EPILEPSY

Till now we have studied about the common causes of epilepsy. But we should also know that the probability of having epilepsy is more in some situations, like:-

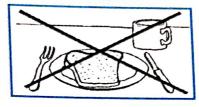
Skipping Medication



Exhaustion



Fasting



Lack of sleep



Fever



Stress and Anxiety



Flickering Lights



Drugs & Alcohol



TYPES OF EPILEPTIC FITS & THEIR SIGNS & SYMPTOMS

Epileptic fits are mainly of four types :-

TYPES OF EPILEPTIC FITS

GENERALIZED FITS

Stage - 1: Warning stage (Duration: few seconds to few minutes)



Fig 10: Epileptic person having headache before the fits

Stage - 2: Tonic stage (Duration: 30 seconds to 60)

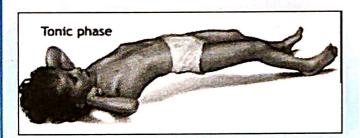


Fig 12: Stiffness and rigidity during a fits

HOW CAN WE RECOGNIZE? (BEHAVIOR/SYMPTOMS)

Before the onset of fits the person may experience:

- 1) Headache (fig 10)
- 2) Mental irritation (fig 11)
- 3) Abdominal discomfort
- 4) Sensation of flashes of light, noises, bad tastes etc.



Fig 11: Epileptic person having mental irritation before the fits

- 1) Sudden loss of consciousness
- 2) One falls down to the ground with or without a cry
- 3) Whole body becomes stiff/ rigid (fig 12)
- 4) Teeth and hands clenched
- 5) Stares blankly
- 6) Face becomes blue

Stage -3 : Clonic stage (Duration lasts for 30 seconds)



Fig 13: Rhythmic movements & Froth from mouth during fits

Stage - 4 : Post-ictal stage (after the fits)
(Duration: few minutes to hours)

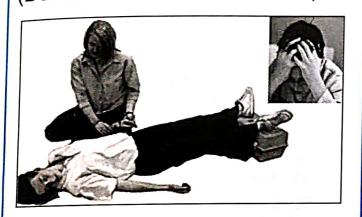


Fig 14: Unresponsive child after the fits.

2 MYOCLONIC FIT

(Duration: 1-2 seconds)



Fig 15: Jerky movements of child in myoclonic fits

- 1) Rhythmic jerky movements of arms and legs.
- 2) Froth appears at the corner of the mouth (may be blood stained due to tongue or lip bite occasionally) (fig 13)

- Patient relaxes and remains unresponsive for some time (fig 14)
- 2) Patient may wake up briefly and go into sleep again for minutes to hours.
- 3) After waking up, the patient may complain of headache and fatigue.
- 4) May appear confused or depressed.
- 1) Involuntary jerky movements of hands, legs or body. **(fig 15)**
- 2) Dropping of things from hand.
- 3) Child may fall.
- 4) Frequency vary from one to many fits in a day.

3 PSYCHOMOTOR FITS

(Duration: 30-60 seconds)



Fig 16: Lip Smacking

4 ABSENCE FITS

(Duration: 5-30 seconds)



Fig 17: Patient looking blank in absence fits



Fig 18: Patient rolled up eyes

Purposeless repetitive activities like

- 1) Lip smacking. (fig 16)
- 2) Lip chewing.
- 3) Patting a part of the body.
- 4) Picking at clothes.

- 1) Stopping the activity for a short while. (fig 17)
- 2) Dropping the things from hand.
- 3) Patient looking blank, eyes rolled up. (fig 18)
- 4) Rapid blinking & extreme confusion.
- 5) Frequency may vary from few to 100 fits per day.

F. Epilepsy and Children

- 1) Most children with epilepsy have IQ's within the normal range
- 2) Seizure activity, without obvious physical symptoms, can still affect learning
- 3) Students with epilepsy are eligible for special education and related services
- 4) Seizures may cause short-term memory problems
- 5) After a seizure, coursework may have to be re-taught
- 6) The risk of having learning problems is three times greater than the average
- 7) Medications may cause drowsiness, inattention, concentration difficulties and behavior changes
- 8) Students with epilepsy are more likely to suffer from low selfesteem
- 9) School difficulties are not always epilepsy-related
- 10) Children with epilepsy should not be over protected

G. THE ROLE OF SCHOOL TEACHER REGARDING AN EPILEPTIC CHILD

Fits can occur any time of the day. An epileptic child may have fits during the school hours like: during prayer, studying in the class etc. Epileptic children cannot control these fits. They can also get injured during the fits. That is why, teachers should know about the first aid management of epileptic fits.

The following can be the role of teachers in the daily activities of epileptic children:-

The teachers should take all precautions regarding daily school

activities of epileptic children.

Teachers should not over protect or over expect from epileptic 2) children.

They should be governed by same rules and regulation as for 3) any other children in the school.

Epileptic children need to be told to move to a safe place when they experience warning signs of an impending fit. 4

Epileptic children should not be allowed to work alone in the 5

laboratory.

They can play video games. They can participate in singing, dancing, active, painting, playing cards snakes & ladder etc. Sports and recreational activities should be encouraged. However they should avoid swimming, mountaineering and working near fire places when they are alone.

Cycling and driving are restricted until the doctor permits.

- The class teacher principal should ensure whether the child has consulted a doctor for epilepsy or not; How is the treatment of the child proceeding and whether he is taking the medicines on time or not.
- The details of the address, phone number, doctors address etc should be maintained in a separate file or register which should 9) be kept in the principal's office.

Encourage the child to carry identity card always with him stating 10) about the following:

I have Epilepsy

My Name	······································
Address	
Tel. No.	
Doctor's Name	
Tel. No.	
Address	
Drugs	Time
\	2 March 2 Marc

H.FIRST AID MANAGEMENT DURING EPILEPTIC FITS

If a child gets fits during school hours, don't become panicky. Do the following with confidence so that other children also pick up the long attitudes from your behaviour. When a child has fits, the teacher can administer the following first aid :-

H1 - STANDARD FIRST AID MANAGEMENT OF EPILEPSY. (Fig. 19)

Stay calm.

Assist the child to lie down. If possible, place some soft cloth under the head.

Do not let a crowd assemble around the child and provide privacy.

Protect student from injury but do not restrain movements

Track time.

Cushion head and protect from hazards like nearby objects.

Remove harmful object like stones, knife, scissors, furniture etc, (which may harm) from the child vicinity.

Take off glasses if present, loosen tight clothes (eg. neck tie, button

of shirt).

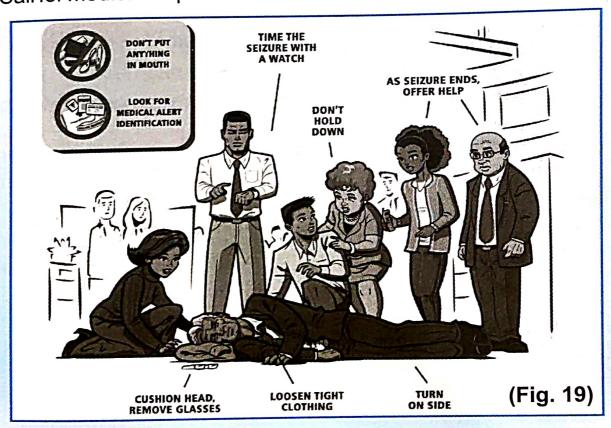
Turn the child to the side so that saliva may flow out and allow easy breathing.

Do not put anything in the mouth

Do not give medicines or fluids until the child is completely awake

Ensure fresh air.

Call for medical help if the fits continue for more than 5 mins.



H2- SPECIFIC FIRST AID MANAGEMENT DIFFERENT TYPES OF EPILEPSY.

GENERALIZED FITS

Stage - 1: (Warning Signs)

- Ask the child and confirm the warning signs.
- Allow the child to lie down in a safe place.
- Place a rolled handkerchief between teeth to prevent biting of tongue or lips during fits.

Stage - 2, 3 & 4

Kindly refer the standard first aid management of epilepsy

MYOCLONIC FITS

Kindly refer the standard first aid management of epilepsy

PSYCHOMOTOR FITS & ABSENCE FITS

- 1. Do not yell at or restrain the child.
- If fits become generalized, follow the standard first aid 2. management for generalized fits
- 3. Try to count & record episodes of fits.

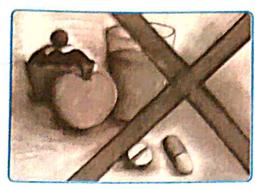
THINGS NOT TO BE DONE DURING AN EPILEPTIC FIT 1.

- 1. Do not force the child for school activities
- 2. Do not leave the child alone.
- 3. Do not crowd around the child.
- 4. Do not attempt mouth to mouth breathing except when child does not resume breathing on his own after fit.
- Do not use force to insert spoon or anything in between teeth 5. as this will cause injury to gums and may dislodge unstable teeth.
- 6. Do not put your finger in the child's mouth, he may bite.
- Do not give metal objects to the child to hold. This does not 7. control the fit rather would hurt the child.
- 8. Do not give water, food or medicine until the child is fully alert.
- 9. Do not hold down or restrain the person.

THINGS NOT TO BE DONE DURING AN EPILEPTIC FIT



NEVER move or pick him up unless he is in direct danger



NEVER give him anything to eat or drink or give him any extra medication



NEVER put anything (eg. spoon) between his teeth.



NEVER give any metal things in hand.

J. WHAT LIFESTYLE CAN AN EPILEPTIC PATIENT ADOPT?

Epileptic children can go to school and can live a normal life. They should be treated like normal children in the school. They should participate in all recreational activities.

They should be send to the same school after the episode. They should be retained in the same job even after the diagnosis. They should not be deprived of employment activities.

Women with epilepsy can conceive and have normal children.

K. HOW TO CONTROL AN EPILEPTIC FIT?

In majority of cases medicines can control epileptic fits. The duration of the treatment depends on the severity of the disease.

L. WHEN SHOULD YOU SEND THE CHILD HOME?

After a major fit, send the child home accompanied by some responsible person. But after minor fits, the child can resume school activities.

M. WHEN SHOULD YOU CALL MEDICAL HELP?

- 1 When the child is getting epileptic fits, one after the other.
- 2. Fits last for more than 5 minutes.
- Patient becomes unconscious between the fits.
- 4. Patient gets injured.
- 5. First episode of fit in his/her life.
- 6. Does not resume normal breathing
- 7. Has diabetes or any other medical condition

N. CONCLUSION

After reading this manual, you must be clear about the disease, how it is caused, how it manifests and how it can be managed. It is very important not to panic when you see a patient having fits and manage him keeping the scientific facts in mind and with patience. It must be remembered that an epileptic patient can live a normal and healthy life in the right environment. Hence, we must help these persons in living a balanced life and provide a positive environment for them.

Seek the advice of your own physician or other qualified health care professional regarding any questions or doubt which remained unanswered in this book.

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A REAL LIFE STORY:

Jeena was a normal 10 year old school going girl who was very cheerful and playful. She had a lot of friends and everybody used to love her and wanted to play with her. She used to score well in her exams and her parents were very proud of her. Then suddenly one day during the lunch break of her school, she fell down on the floor and started shaking vigorously and froth started to appear from her mouth. Everybody gathered around her and some people even held her arms and legs. Yet, others tried to force her mouth open to put some water in her mouth. She bit the hand of a person which caused him to bleed. She became so violent that she broke the spectacles of one of her teachers who was holding her down. This led to bleeding from her arms. The eye of the teacher holding her down was also injured. After few minutes, she started to calm down. When she re-gained consciousness, she did not remember what had happened to her and why everyone was standing beside her. The teachers provided her with first aid and caller her parents to take her home. She become normal just like she was before the fits.

But after this incident, her friends started calling her mad. Some people would also say that she was possessed by demons. Her friends refused to sit besides her or even play with her. She got very depressed and started avoiding school and started being very silent. She would speak to no one about what was bothering her. Her parents took her to a psychologist for counseling, where she told him the way she was being treated in her school. Her parents were shocked and immediately changed her school.

Luckily, they found a school where facts about epilepsy were being taught in the normal syllabus. She had many fits even after changing her school but since everyone understood the disease in this school, nobody created a fuss over anything. She was given appropriate medical attention and the support she required. She made friends again and resumed her regular activities just like before.

Today she has become a doctor, and is working for a renowned hospital She is happily married with two children and is living her normal life.

This story shows how a positive environment in schools can help an student with epilepsy to achieve success in his/her life.

-रांग के अरी

वीडियो गेम्स खेली तो होगा मिर्गी रोग!

पी.जी.आई. आने वादि 20 प्रतिश्त कार्य प्राप्त कर्मा कार्य का



पी.पी.कार्य, में कार्योतिय पत्रकार कार्य में निर्मी कारकारण पर प्राणी पुरिवका के राज्य विकित्सक।

चंडीगड़ र मार्च (अर्चना)। पी जी आहे. के कहन आंध्र घंकाकं हैल्य विभाग ने सिगों ग्रेग के लिए एकं को जानकक करने के लिए एकं पुल्लिन का प्रकारण किन्यों है। यह पुल्लिन का प्रकारण किन्यों है। यह पुल्लिन का प्रकारण किन्यों है। यह

उपलब्ध है। प्रश्नवार मार्ली में पुनिज्ञका को जानकारी येते हुए भी जी उन्हें. के प्रेजीकार सुमान्त्रिक की अतिका गुष्ता, गांकारक हैएका के हा ओवू गीयका, हो। अभारतीत गिहा, ज्युनियांकी से का निकेक शास्त्र में समामा किर कह पुनिज्ञका शहर

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Gaming can be epilepsy trigger, say PGI doctors

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BOOKLET ON EPILEPSY RELEASED

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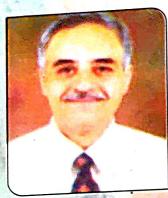
इनमर उजाला

स्कूली बच्चों, अध्यापकों को ची जायेगी पिगी रोग की जानकारी



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